



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

April 1, 2003

Mr. James Fearnow
Structural Composites of Indiana, Inc.
1118 Gerber Street
Ligonier, Indiana 46767

Re: **113-16514**
Significant Source Modification to:
Part 70 Operating Permit No.: **T 113-12934-00074**

Dear Mr. Fearnow:

Structural Composites of Indiana, Inc. was issued Part 70 Operating Permit **T 113-12934-00074** on March 20, 2002 for a stationary customized fiberglass parts manufacturing source. An application to modify the source was received on December 2, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.
- (b) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.
- (c) One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.
- (d) One (1) closed molding process, capacity: 47.09 pounds of resin per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 20 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,
Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

EAL/MES

cc: File - Noble County
Noble County Health Department
Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Branch - Karen Nowak
Administrative and Development - Lisa Lawrence
Technical Support and Modeling - Michele Boner



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Structural Composites of Indiana, Inc.
1118 Gerber Street
Ligonier, Indiana 46767**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Significant Source Modification No.: 113-16514-00074	Sections Affected: A.2, C.22, D.1, D.2, Quarterly Report Form
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 1, 2003

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary customized fiberglass parts manufacturing plant.

Responsible Official:	James Fearnow, Production Manager
Source Address:	1118 Gerber Street, Ligonier, Indiana 46767
Mailing Address:	1118 Gerber Street, Ligonier, Indiana 46767
General Source Phone Number:	260 - 894 - 4312
SIC Code:	3089
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) gel and lamination area consisting of a gel coating process with air-assisted airless spray guns, dry filters for air pollution control and an approximate capacity of 184 pounds of resin per hour, a lamination process with flow coater equipment, dry filters for air pollution control, and an approximate capacity of 720 pounds of resin per hour and three (3) exhaust fans with a flow rate of 10,000 cubic feet per minute.
- (b) One (1) mold preparation and final finish area, equipped with spray guns, and dry filters for air pollution control.
- (c) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.
- (d) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.
- (e) One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.
- (f) One (1) closed molding process, capacity: 47.09 pounds of resin per hour.
- (g) One (1) grinding booth, equipped with grinders, diamond cutters and various hand tools, with dry filters for air pollution control, exhausting to Stack GRD 08-11, capacity: 1,210 pounds per hour.

Structural Composites of Indiana, Inc.
Ligonier, Indiana
Permit Reviewer: EAL/MES

First Significant Source Modification No.: 113-16514
Revised by: EAL/MES

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A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]
- (b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]
- (c) Other activities or categories not previously identified with emissions equal to or less than the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day for PM, SO₂, and/or NO_x, three (3) pounds per hour or fifteen (15) pounds per day for VOC, twenty-five (25) pounds per day for CO or 0.6 tons per year or 3.29 pounds per day of lead:

A wood shop for mold making with saws, drills, sanders, etc., eight (8) diamond cutters, five (5) hand grinders, eight (8) die grinders, twelve (12) DA hand sanders, two (2) jig saws, seven (7) hand drills, twelve (12) hand buffers, three (3) table saws, three (3) circular saws, two (2) sawsails, two (2) band saws, two (2) bench grinders, two (2) arc welders, one (1) oxyacetylene torch. [326 IAC 6-3-2]
- (d) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone. [326 IAC 6-3-2]
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

C.22 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

- (a) The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(2) within thirty (30) days of issuance of the Title V permit modification incorporating the requirements of this source modification into the Permittee's Title V operating permit. The Part 1 MACT Application shall meet the

requirements of 40 CFR 63.53(a).

- (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).
- (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:
 - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;
 - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or
 - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.
- (d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) gel and lamination area consisting of a gel coating process with air-assisted airless spray guns, dry filters for air pollution control and an approximate capacity of 184 pounds of resin per hour, a lamination process with flow coater equipment, dry filters for air pollution control, and an approximate capacity of 720 pounds of resin per hour and three (3) exhaust fans with a flow rate of 10,000 cubic feet per minute.
- (b) One (1) mold preparation and final finish area, equipped with spray guns, and dry filters for air pollution control.
- (c) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.
- (d) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.
- (e) One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.
- (f) One (1) closed molding process, capacity: 47.09 pounds of resin per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 New Source Toxics Control [326 IAC 2-4.1-1] [326 IAC 8-1-6]

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the customized fiberglass part manufacturing source, consisting of the one (1) gel and lamination area, the one (1) mold preparation and final finish area, the two (2) gelcoat stations, the one (1) lamination station, and the one (1) closed molding process shall be the following:

- (a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAPs from use of such resins and gel coats only shall be less than one hundred (100) tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites,"

Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

¹ Production refers to the manufacture of parts.

² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) - (Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) *
EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

- (d) Optimized spray techniques according to a manner approved by IDEM, OAQ shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

- (e) The listed work practices shall be followed:
- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
 - (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.
 - (iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
 - (iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
 - (v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
 - (3) All material storage containers shall be kept covered when not in use.

Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.1.2 Emissions from Reinforced Plastics Composites Fabricating Emission Units [326 IAC 20-25]

The following shall apply to the reinforced plastic composites open molding process:

- (a) Pursuant to 326 IAC 20-25-4, the following work practice standards shall be implemented:
- (1) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

- (2) Except for mixing containers as described in item (7), HAP containing materials shall be kept in a closed container when not in use.
 - (3) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.
 - (4) Solvent collection containers shall be kept closed when not in use.
 - (5) Clean-up rags with solvent shall be stored in closed containers.
 - (6) Closed containers shall be used for the storage of the following:
 - (A) All production and tooling resins that contain HAPs.
 - (B) All production and tooling gel coats that contain HAPs.
 - (C) Waste resins and gel coats that contain HAPs.
 - (D) Cleaning materials, including waste cleaning materials.
 - (E) Other materials that contain HAPs.
 - (7) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.
- (b) Pursuant to 326 IAC 20-25-8, all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and spray-like applications (for example, those applications that could result in excess emissions if performed improperly) shall be trained according to the following schedule:
- (1) All personnel hired after March 7, 2001 shall be trained within fifteen (15) days of hiring.
 - (2) All personnel hired before March 7, 2001 shall be trained or evaluated by a supervisor within thirty (30) days of the start of operation.
 - (3) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.
 - (4) Personnel who have been trained by another owner or operator subject to 326 IAC 20-25 are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employer.
 - (5) If the result of an evaluation shows that training is needed, such training shall occur within fifteen (15) days of the evaluation.

The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:

- (1) Appropriate application techniques.
- (2) Appropriate equipment cleaning procedures.
- (3) Appropriate equipment setup and adjustment to minimize material usage and overspray.

D.1.3 Particulate [326 IAC 6-3-2]

The particulate from the gelcoat booth, the lamination booth, the mold preparation and finish area, the two (2) gelcoat stations and the one (1) lamination station shall each not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the gelcoat booth, the lamination booth, the mold preparation and finish area, the two (2) gelcoat stations, the one (1) lamination station, the one (1) closed molding process, and any control devices.

Compliance Determination Requirements

D.1.5 Volatile Organic HAPs

Compliance with the volatile organic HAP content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 Volatile Organic HAPs Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic HAP usage for the most recent twelve (12) month period.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.7 Particulate Matter (PM)

The dry filters for particulate PM control shall be in operation at all times when the gelcoat booth, lamination booth, mold preparation and finish area, the two (2) gelcoat stations and the one (1) lamination station are in operation.

D.1.8 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the gelcoat booth, lamination booth and mold preparation and finish area stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic HAP usage limits and/or the volatile organic HAP content limits established in Conditions D.1.1 and D.1.2.
 - (1) The amount, VOC content and volatile organic HAP content of each resin and gelcoat. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) Method of application and other emission reduction techniques for each resin and gel coat used;
 - (3) The HAP monomer content for resins and gelcoats calculated on an equivalent mass basis for each month in which noncompliant resins or gelcoats are used;
 - (4) The cleanup solvent usage for each month;
 - (5) The calculated total VOC and volatile organic HAP usage for each month; and
 - (6) The weight of VOCs and volatile organic HAPs emitted for each compliance period.
- (b) To document compliance with Condition D.1.2(b), the Permittee shall maintain the following training records:
 - (1) A copy of the current training program.
 - (2) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.
- (c) To document compliance with Condition D.1.7 and D.1.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) Pursuant to 326 IAC 20-25-7(b), on or before March 1, 2002, the owner or operator of a source subject to 326 IAC 20-25 shall submit an initial statement of compliance to the commissioner. The initial statement of compliance shall include all of the following:
 - (1) Name and address of the owner or operator.
 - (2) Address of the physical location.
 - (3) Statement signed by a responsible official, as set forth in 326 IAC 2-7-1(34), certifying that the source achieved compliance on or before January 1, 2002, the method used to achieve compliance, and that the source is in compliance with all the requirements of this rule.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (g) One (1) grinding booth, equipped with grinders, diamond cutters and various hand tools, with dry filters for air pollution control, exhausting to Stack GRD 08-11, capacity: 1,210 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) grinding booth shall not exceed 2.93 pounds per hour when operating at a process weight rate of 1,210 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Compliance Determination Requirements

D.2.2 Particulate

In order to comply with Condition D.2.1, the dry filters for particulate control shall be in operation and control emissions from the one (1) grinding booth at all times that the one (1) grinding booth is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no specific Compliance Monitoring Requirements applicable to this emission unit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Structural Composites of Indiana, Inc.
Source Address: 1118 Gerber Street, Ligonier, Indiana 46767
Mailing Address: 1118 Gerber Street, Ligonier, Indiana 46767
Part 70 Permit No.: T 113-12934-00074
Facilities: The customized fiberglass part manufacturing source, consisting of the gelcoat booth, the lamination booth, the mold preparation and final finish area, the two (2) gelcoat stations, the one (1) lamination station, and the one (1) closed molding process
Parameter: Volatile Organic HAP emissions
Limit: Less than one hundred (100) tons per twelve (12) consecutive month period

YEAR: _____

Month	Volatile Organic HAP emissions (tons)	Volatile Organic HAP emissions (tons)	Volatile Organic HAP emissions (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by:

Title/Position:

Signature:

Date:

Phone:

Attach a signed certification to complete this report.

April 1, 2003

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70
Significant Source Modification and a Significant Permit Modification**

Source Background and Description

Source Name:	Structural Composites of Indiana, Inc.
Source Location:	1118 Gerber Street, Ligonier, Indiana 46767
County:	Noble
SIC Code:	3089
Operation Permit No.:	T 113-12934-00074
Operation Permit Issuance Date:	March 20, 2002
Significant Source Modification No.:	113-16514-00074
Significant Permit Modification No.:	113-16656-00074
Permit Reviewer:	Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a modification application from Structural Composites of Indiana, Inc. relating to the construction and operation of the following emission units and pollution control devices:

- (a) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.
- (b) One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.
- (c) One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.
- (d) One (1) closed molding process, capacity: 47.09 pounds of resin per hour.

History

Structural Composites of Indiana, Inc. was issued a Part 70 operating permit on March 20, 2002. On December 2, 2002, Structural Composites of Indiana, Inc. submitted an application to the OAQ requesting to add additional fiberglass parts production units to their existing plant. The increase of production will also result in an additional 290.1 pounds per hour of throughput at the existing grinding booth.

Enforcement Issue

There are no enforcement actions pending.

Structural Composites of Indiana, Inc.
Ligonier, Indiana
Permit Reviewer: EAL/MES

Page 2 of 18
First Significant Source Modification: 113-16514-00074
First Significant Permit Modification: 113-16656-00074

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
SV-4	gelcoat station	30.0	1.25	11,430	ambient
SV-5	gelcoat station	30.0	1.25	11,430	ambient
SV-6	lamination station	30.0	1.25	11,430	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 2, 2002.

Emission Calculations

See page 1 of 1 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	39.0
PM ₁₀	39.0
SO ₂	0.00
VOC	97.1
CO	0.00
NO _x	0.00

HAPs	Potential To Emit (tons/year)
Styrene	65.4
Dimethyl phthalate	11.2
TOTAL	76.6

Justification for Modification

The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4), because the potential to emit of PM, PM₁₀ and VOC from the modification are each greater than twenty-five (25) tons per year. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification (SPM 113-16656-00074) in accordance with 326 IAC 2-7-12(d)(1). The Significant Permit Modification will give the source approval to operate the proposed emission units.

County Attainment Status

The source is located in Noble County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Noble County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	10.1
PM ₁₀	10.1
SO ₂	0.012
VOC	less than 105
CO	1.62
NO _x	1.93

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document for the Part 70 operating permit (T 113-12934-00074).

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Proposed Modification	39.0	39.0	0.00	97.1	0.00	0.00	76.6
PSD Threshold Level	250	250	250	250	250	250	-

The values in the above table represent the unrestricted potential to emit of the proposed emission units. This shows that this modification to an existing minor stationary source is not major, because the emission increase is less than the PSD threshold levels, even without limitations or control devices. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. The VOC and HAP emissions from the proposed emission units will be limited under the existing limitations contained in the Part 70 operating permit.

Federal Rule Applicability

- (a) This significant modification does not involve a pollutant-specific emissions unit:
- (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and
 - (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

- (b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are applicable to this source because the source is constructing new emissions units at an existing major source of hazardous air pollutant (HAP) emissions (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs), and the new units belong to one or more source categories affected by the Section 112(j) Maximum Achievable Control Technology (MACT) Hammer date of May 15, 2002. This rule requires the Permittee to:
- (1) Submit a Part 1 MACT Application within thirty (30) days of issuance of the Title V permit modification incorporating the requirements of this source modification into the Permittee's Title V operating permit; and
 - (2) Submit a Part 2 MACT Application within twenty-four (24) months after the Permittee submitted a Part 1 MACT Application.

Note that on April 25, 2002, Earthjustice filed a lawsuit against the US EPA regarding the April 5, 2002 revisions to the rules implementing Section 112(j) of the Clean Air Act. In particular, Earthjustice challenged the US EPA's 24-month period between the Part 1 and Part 2 MACT Application due dates. The U.S. EPA and Earthjustice filed a settlement agreement on November 26, 2002. Proposed rule amendments based on this settlement agreement were published in the December 9, 2002 *Federal Register*. It appears that U.S. EPA intends to establish a phased schedule for promulgating all of the remaining MACT standards, resulting in four Part 2 MACT Application deadlines. Under the proposed amendments, some Part 2 MACT Applications would be due as early as May 15, 2003.

- (3) Pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The MACT and the General Provisions

of 40 CFR 63, Subpart A will become new applicable requirements, as defined by 326 IAC 2-7-1(6), that must be incorporated into the Part 70 permit. After IDEM, OAQ receives the initial notification, any of the following will occur:

- (A) If three or more years remain on the Part 70 permit term at the time the MACT is promulgated, IDEM, OAQ will notify the source that IDEM, OAQ will reopen the permit to include the MACT requirements pursuant to 326 IAC 2-7-9; or
- (B) If less than three years remain on the Part 70 permit term at the time the MACT is promulgated, the Permittee must include information regarding the MACT in the renewal application, including the information required in 326 IAC 2-7-4(c); or
- (C) The Permittee may submit an application for a significant permit modification under 326 IAC 2-7-12 to incorporate the MACT requirements. The application may include information regarding which portions of the MACT are applicable to the emission units at the source and which compliance options will be followed.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. The VOC from the modification will be limited under the existing VOC limit of less than one hundred (100) tons per year. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

The proposed fiberglass reinforced products manufacturing units have potential HAP emissions greater than ten (10) tons per year of a single HAP (Styrene) and greater than twenty-five (25) tons per year of combination HAPs. Therefore, the units are subject to the requirements of 326 IAC 2-4.1. The proposed units shall comply with the existing usage limitations, HAP content limitations, spray equipment requirements and work practice standards prescribed by Condition D.1.1 of the Part 70 operating permit.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) The addition of the proposed emission fiberglass production units will result in an increased throughput at the existing grinding booth of 290.1 pounds per hour, making the new process weight rate for this booth 1,210 pounds per hour. Pursuant to 326 IAC 6-3-2, the particulate from the one (1) grinding booth (GRD 08-11) shall not exceed 2.93 pounds per hour when operating at a process weight rate of 1,210 pounds per hour.

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad \begin{array}{l} E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \end{array}$$

The dry filters for particulate control shall be in operation and control emissions from the one (1) grinding booth at all times that the one (1) grinding booth is in operation.

- (b) On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirement from the previous version of 326 IAC 6-3 (Process Operations) which has been approved into the SIP will remain the applicable requirement until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the two (2) gelcoat stations and the one (1) lamination station shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad \begin{array}{l} E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \end{array}$$

Under the rule revision, particulate from the reinforced plastics composites fabricating manufacturing processes shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The proposed fiberglass products production units are subject to the requirements of 326 IAC 8-1-6 because the potential VOC emissions are greater than twenty-five (25) tons per year, and are governed by no other provisions of Article 8. Pursuant to this rule, a Best Available Control Technology (BACT) Analysis is required. Since 326 IAC 2-4.1-1 (New Source Toxics Control) is the most stringent authority for controlling VOC/HAPs emissions, the MACT determined under 326 IAC 2-4.1-1 shall be the BACT and shall satisfy the requirements of 326 IAC 8-1-6 (BACT).

326 IAC 20-25 (Emissions from Reinforced Plastics Composites Fabricating Emission Units)

- (a) This source is subject to the requirements of 326 IAC 20-25 because it has the potential to emit ten (10) tons per year of any hazardous air pollutant (HAP) or twenty-five (25) tons per year of any combination of HAPs, and meets all of the following criteria:
- (1) The source manufactures reinforced plastics composites parts, products, or watercraft;
 - (2) The source includes an emission unit where resins and gel coats that contain styrene are applied and cured using the open molding process; and
 - (3) The source has actual emissions of styrene equal to or greater than three (3) tons per year.

Pursuant to 326 IAC 20-25-3(f), a new or reconstructed emission unit subject to 326 IAC 2-4.1-1 is not subject to the requirements of 326 IAC 20-25-3. Therefore, the two (2) gelcoat stations, the one (1) lamination station, or the one (1) closed molding process, are not subject to the requirements of 326 IAC 20-25-3 (Emissions from Reinforced Plastics Composites Fabricating Emission Units; Emission Standards). However, the proposed emission units are subject to the requirements of 326 IAC 20-25-4 (Work practice standards), 326 IAC 20-25-6 (Record keeping requirements), 326 IAC 20-25-7 (Reporting requirements), and 326 IAC 20-25-8 (Operator training).

- (b) Pursuant to 326 IAC 20-25-4, the following work practice standards shall be implemented:
- (1) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.
 - (2) Except for mixing containers as described in item (7), HAP containing materials shall be kept in a closed container when not in use.
 - (3) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.
 - (4) Solvent collection containers shall be kept closed when not in use.
 - (5) Clean-up rags with solvent shall be stored in closed containers.
 - (6) Closed containers shall be used for the storage of the following:
 - (A) All production and tooling resins that contain HAPs.
 - (B) All production and tooling gel coats that contain HAPs.
 - (C) Waste resins and gel coats that contain HAPs.
 - (D) Cleaning materials, including waste cleaning materials.
 - (E) Other materials that contain HAPs.
 - (7) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.
- (c) Pursuant to 326 IAC 20-25-8, all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and spray-like applications (for example, those applications that could result in excess emissions if performed improperly) shall be trained according to the following schedule:
- (1) All personnel hired after March 7, 2001 shall be trained within fifteen (15) days of hiring.
 - (2) All personnel hired before March 7, 2001 shall be trained or evaluated by a supervisor within thirty (30) days of the start of operation.

- (3) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.
- (4) Personnel who have been trained by another owner or operator subject to 326 IAC 20-25 are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employer.
- (5) If the result of an evaluation shows that training is needed, such training shall occur within fifteen (15) days of the evaluation.

The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:

- (1) Appropriate application techniques.
- (2) Appropriate equipment cleaning procedures.
- (3) Appropriate equipment setup and adjustment to minimize material usage and overspray.

The owner or operator shall maintain the following training records on site and available for inspection and review:

- (1) A copy of the current training program.
 - (2) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.
- (d) Pursuant to 326 IAC 20-25-7(b), on or before March 1, 2002, the owner or operator of a source subject to 326 IAC 20-25 shall submit an initial statement of compliance to the commissioner. The initial statement of compliance shall include all of the following:
- (1) Name and address of the owner or operator.
 - (2) Address of the physical location.
 - (3) Statement signed by a responsible official, as set forth in 326 IAC 2-7-1(34), certifying that the source achieved compliance on or before January 1, 2002, the method used to achieve compliance, and that the source is in compliance with all the requirements of this rule.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no new compliance monitoring requirements applicable to this source as a result of this modification.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) gel and lamination area consisting of a gel coating process with air-assisted airless spray guns, dry filters for air pollution control and an approximate capacity of 184 pounds of resin per hour, a lamination process with flow coater equipment, dry filters for air pollution control, and an approximate capacity of 720 pounds of resin per hour and three (3) exhaust fans with a flow rate of 10,000 cubic feet per minute.
- (b) One (1) mold preparation and final finish area, equipped with spray guns, and dry filters for air pollution control.
- (c) **One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.**
- (d) **One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.**
- (e) **One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.**
- (f) **One (1) closed molding process, capacity: 47.09 pounds of resin per hour.**
- (e g) One (1) grinding booth, equipped with grinders, diamond cutters and various hand tools, with dry filters for air pollution control, exhausting to Stack GRD 08-11, capacity: ~~920~~ **1,210** pounds per hour.

C.22 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(b) and (e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

- (a) **The Permittee shall submit a Part 1 Maximum Achievable Control Technology (MACT) Application in accordance with 40 CFR 63.52(b)(2) within thirty (30) days of issuance**

of the Title V permit modification incorporating the requirements of this source modification into the Permittee's Title V operating permit. The Part 1 MACT Application shall meet the requirements of 40 CFR 63.53(a).

- (b) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).**
- (c) Notwithstanding paragraph (b), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:**
 - (1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;**
 - (2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or**
 - (3) The MACT standard or standards for the affected source categories included at the source are promulgated.**
- (d) Notwithstanding paragraph (b), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:**

**Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

and

**United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) gel and lamination area consisting of a gel coating process with air-assisted airless spray guns, dry filters for air pollution control and an approximate capacity of 184 pounds of resin per hour, a lamination process with flow coater equipment, dry filters for air pollution control, and an approximate capacity of 720 pounds of resin per hour and three (3) exhaust fans with a flow rate of 10,000 cubic feet per minute.
- (b) One (1) mold preparation and final finish area, equipped with spray guns, and dry filters for air pollution control.
- (c) **One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-4, capacity: 44.43 pounds of gelcoat per hour.**
- (d) **One (1) gelcoat station, equipped with air-assisted airless spray guns and dry filters for air pollution control, exhausting to Stack SV-5, capacity: 6.92 pounds of gelcoat per hour.**
- (e) **One (1) lamination station, equipped with flow coaters and dry filters for air pollution control, exhausting to Stack SV-6, capacity: 199.63 pounds of resin per hour.**
- (f) **One (1) closed molding process, capacity: 47.09 pounds of resin per hour.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 New Source Toxics Control [326 IAC 2-4.1-1] [326 IAC 8-1-6]

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the customized fiberglass part manufacturing source, **consisting of the one (1) gel and lamination area, the one (1) mold preparation and final finish area, the two (2) gelcoat stations, the one (1) lamination station, and the one (1) closed molding process** shall be the following:

- (a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAPs from use of such resins and gel coats only shall be less than one hundred (100) tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the

following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

¹ Production refers to the manufacture of parts.

² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) - (Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) *
EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed

rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

- (d) Optimized spray techniques according to a manner approved by IDEM, OAQ shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.

HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

- (e) The listed work practices shall be followed:

- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
- (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.
 - (iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
 - (iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
 - (v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (3) All material storage containers shall be kept covered when not in use.

Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (BACT).

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

The **PM particulate** from the gelcoat booth, the lamination booth, and the mold preparation and finish area, **the two (2) gelcoat stations and the one (1) lamination station** shall each not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the gelcoat booth, the lamination booth, the mold preparation and finish area, **the two (2) gelcoat stations, the one (1) lamination station, the one (1) closed molding process,** and any control devices.

D.1.7 Particulate Matter (PM)

The dry filters for **particulate PM** control shall be in operation at all times when the gelcoat booth, lamination booth, ~~and~~ mold preparation and finish area, **the two (2) gelcoat stations and the one (1) lamination station** are in operation.

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic HAP usage limits and/or the volatile organic HAP content limits established in Conditions D.1.1 and D.1.2.
- (1) The amount, VOC content and volatile organic HAP content of each resin and gelcoat. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - ~~(2) A log of the dates of use;~~
 - ~~(2)~~ (3) Method of application and other emission reduction techniques for each resin and gel coat used;
 - ~~(3)~~ (4) The HAP monomer content for resins and gelcoats calculated on an equivalent mass basis for each month in which noncompliant resins or gelcoats are used;
 - ~~(4)~~ (5) The cleanup solvent usage for each month;
 - ~~(5)~~ (6) The calculated total VOC and volatile organic HAP usage for each month; and
 - ~~(6)~~ (7) The weight of VOCs and volatile organic HAPs emitted for each compliance period.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(g d) One (1) grinding booth, equipped with grinders, diamond cutters and various hand tools, with dry filters for air pollution control, exhausting to Stack GRD 08-11, capacity: ~~920~~ **1,210** pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (~~Particulate Emission Limitations for Manufacturing Processes~~ **Process Operations**), the allowable **particulate PM** emission rate from the one (1) grinding booth shall not exceed ~~2.44~~ **2.93** pounds per hour when operating at a process weight rate of ~~920~~ **1,210** pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.2.2 Particulate Matter (PM)

In order to comply with Condition D.2.1, the dry filters for **particulate PM** control shall be in operation and control emissions from the one (1) grinding booth at all times that the one (1) grinding booth is in operation.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name:	Structural Composites of Indiana, Inc.
Source Address:	1118 Gerber Street, Ligonier, Indiana 46767
Mailing Address:	1118 Gerber Street, Ligonier, Indiana 46767
Part 70 Permit No.:	T 113-12934-00074
Facilities:	The customized fiberglass part manufacturing source, consisting of the gelcoat booth, the lamination booth, and the mold preparation and final finish area, the two (2) gelcoat stations, the one (1) lamination station, and the one (1) closed molding process
Parameter:	Volatile Organic HAP emissions
Limit:	Less than one hundred (100) tons per twelve (12) consecutive month period

Conclusion

Structural Composites of Indiana, Inc.
Ligonier, Indiana
Permit Reviewer: EAL/MES

Page 18 of 18
First Significant Source Modification: 113-16514-00074
First Significant Permit Modification: 113-16656-00074

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. **113-16514-00074** and Significant Permit Modification No. **113-16656-00074**.

**Company | Structural Composites of Indiana, Inc.
Address | 1118 Gerber Street, Ligonier, Indiana 46563
SSM: 113-16514
Plt ID: 113-00074
Reviewer: Edward A. Longenberger
Date: December 2, 2002**

Material (Application Method)	Density (lb/gal)	Weight % Monomer VOC	CFA Unified Emission Fac (lbs/ton)	Gallons per unit	Units per hour	lbs VOC per hour	lbs VOC per day	Tons VOC per year	Tons of HA per year	PM tons per year	Transfer Efficiency
Roof production (Stack SV-4) G309-LA-80780 GELCOAT (Air Assisted Airless) Styrene	11.70	29.0%	258.00	3.71	1.00	5.59	134.21	24.5	24.5	33.7	75.00%
Roof production (Stack SV-6) H834-RLC-20 RESIN (Flow Coat) Styrene	9.17	35.0%	77.00	21.24	1.00	7.50	179.96	32.8	32.8	0.00	*****
Roof production Hi-Point 90 Catalyst 36% dimethyl phthalate	8.94	100.0%	N/A	0.665	1.00	5.94	142.64	26.0	9.37	0.00	75.00%
Roof production CT-AR7 Mold Release	7.43	100.0%	N/A	0.010	1.00	0.074	1.78	0.324	0.00	0.00	75.00%
Component production (Stack SV-5) G309-LA-80780 GELCOAT (Air Assisted Airless) Styrene	11.70	29.0%	258.00	0.5769	1.00	0.8708	20.90	3.81	3.81	5.25	75.00%
Component production (no stack) H834-RLC-20 RESIN (closed molding) * Styrene	9.17	35.0%	42.40	5.01	1.00	0.97	23.37	4.27	4.27	0.00	*****
Component production Hi-Point 90 Catalyst 36% dimethyl phthalate	8.94	100.0%	N/A	0.128	1.00	1.15	27.57	5.03	1.81	0.00	75.00%
Component production CT-AR7 Mold Release	7.43	100.0%	N/A	0.010	1.00	0.074	1.78	0.324	0.00	0.00	75.00%
				PM Control	98.0%						
				Potential \$		22.2	532	97.1	76.6	39.0	
				Potential /		22.2	532	97.1	76.6	0.779	

METHODOLOGY

Potential VOC Pounds per Hour = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Emission factor (lb/ton) * (1 ton/2000 lbs)

Potential VOC Pounds per Day = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day) * Emission factor (lb/ton) * (1 ton/2000 lbs)

Potential VOC Tons per Year = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * (8760 hr/yr) * (1 ton / 2000 lbs) * Emission factor (lb/ton) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hr/yr) * (1 ton / 2000 lbs)

Total = Sum of all worst case coatings and solvents used

Emission Factor (lbs VOC/ton) taken from "Unified Emission Factors for Open Molding of Composites", Composite Fabricators Association (CFA), April 1999